

THE RECOGNITION OF PULMONARY TUBERCULOSIS

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THAT tuberculosis is terribly prevalent is a fact all must be willing to admit, but while we may wonder at and accept the figures which mortality statistics, autopsy records, and biological reactions force upon us, do we take our impressions of this prevalence, this omnipresence of tuberculosis, and the idea that a probable biological inheritance has become of clinical importance into our daily practice? I do not think we do.

Familiar association with many hundreds of consumptives during the last ten years, and intimate knowledge of the histories and physical conditions of most of these, convince me that a considerable percentage of them could have been saved much illness, and probably assured much longer lives, if this point of view of the great prevalence of tuberculosis and the ever-present possibility of such infection had been in the minds of their physicians. It is probable that through familiarity with a family or an individual the suspicions of the physician are not readily aroused, but it is difficult to explain why, very often, when most obvious suggestive symptoms have arisen, the practitioner should ward off the possibility of a reasonably early diagnosis by lulling the fears of the patient, the family, and himself, and creating a feeling of false security. Many families no doubt resent the imputation of tuberculosis almost as an insult, but there are many, also, to-day awakened by popular education to a lively sense of such a possibility. In either case the criticism for delayed diagnosis will surely come, and often with much justice. As a kindness to the patient the day of concealment should belong absolutely to the past. Frankness is the only proper course. At the same time that fears are lulled, the examination, both natural and necessary at such a time, is either not done, or else is done in such a casual manner that it is valueless; the patient is frequently reassured and fears are calmed until finally the diagnosis is forced upon both medical adviser and patient, by which time, very possibly, the patient has consulted another physician or sent his own sputum to a laboratory for examination. Why should the bleeding point in the throat be so frequently found to explain a hæmorrhage which should surely point to most careful inquiry, examination, and prolonged observation in case nothing is

found, or to consultation if the practitioner has any reason to doubt the refinements of his methods of physical examination? Why should there be such slight attention paid to the sputum examination of a continued bronchitis, even though the patient himself suggests and even implores that his expectoration be examined; or a case muscularly weak, pale, and possibly with dyspeptic symptoms be so lightly diagnosed as dyspepsia, anæmia, or nervous prostration; or persistent, but variable pain in neck and shoulders be regarded as rheumatism; or a husky-voiced larynx receive such continued and vigorous treatment without a realization of the causes other than local for such a condition? Why also should a slight rise of temperature in the neighbourhood of one degree elevation, of possibly daily recurrence, be of such little moment to many practitioners and so seldom sought? Do the harsh coughs so frequently recurrent in some children, without other symptoms of bronchitis, but associated with fever when the patient has taken cold, and the almost invariable presence of cervical nodes, put us on guard as they should do, even without further examination?

In most instances an open mind and a careful inquiry, with due regard to certain symptoms, in some cases definite, in others indefinite, but just what we have a right to expect from a disease which early manifests itself by the symptoms—a toxæmia mainly affecting the neuromuscular system, will obtain a diagnosis much earlier than can be possible from the methods of physical examination commonly in vogue. Many histories can be adduced to support this view. The diagnosis should, in any case, be fairly determined without waiting for marked physical signs or bacilli in sputum. In addition, thermometry, with frequent observations made by the patient himself, after due instruction, to replace the casual office temperature observation that is not necessarily of any value; the repeated use of the same scales; and the repeated examination of sputum, with no attention whatever paid to a casual negative report, will give good ground for warning or reassurance. It is interesting to note that for 1909, with an estimated ten thousand cases in the province of Ontario, only twenty-two hundred and fifty sputum examinations were done by the Provincial Board of Health Laboratories—and sixteen hundred of these gave negative results. The various hospital laboratories no doubt serve many practitioners, but with the addition of examinations made there and in private laboratories the total number of specimens examined is all too small for the number of patients who should be suspected. The examinations in city laboratories at this time are negligible.

Physical examination of the chest yields such discordant results, varying with the training and care of the examiner, that for reasonably early diagnosis it is, as frequently carried out, quite as likely to lead astray as to be of service. There are of course cases which are obvious, and others so definite that with relatively slight examination the veriest tyro may make a diagnosis, and it is always desirable to have these recognized in order to safeguard others, though the diagnosis may be of little value to the individual concerned. But many moderately advanced cases require care in examination and many incipient extreme care, to say nothing of the probable and doubtful cases. The need of most careful physical examinations is further emphasized by the sensitiveness and discrepancies of the several tuberculin tests which have promised so much, but which, while specific, cannot be regarded necessarily as informative of a clinical tuberculosis without being interpreted along with the clinical and historical data accurately obtained. These tests, while not used as extensively as they might well be, can readily be misinterpreted and prove a source of error, though an error usually in the right direction. Simple, sound, routine examination of the various organs of the body consistently followed will pick up cases otherwise easily overlooked. In the last six months, in a small practice, two cases of early tuberculosis were found which had been overlooked, one by an eminent internist, especially renowned in tuberculosis, and the other by a successful family physician. In neither of these cases was the pulmonary disease relatively of moment, and it is a coincidence that neither case came from Canada.

It is so momentous for the patient that the disease be diagnosed early, that physical examination is of the utmost importance, but the examination to be of value must be a skilled one. Good technique is essential and also a considerable experience of relative values. In all the methods employed the greatest care must be taken to eliminate error, which can so readily creep into any of the procedures used. Both leisure and quiet are essential in difficult cases, and, even after the greatest care has been used, the examiner must often be in doubt, and can only recommend a repetition of the examination after a period of observation. Methods of chest examination ordinarily seen are, in the majority of cases, too crude really to detect early cases or to warrant an opinion excluding tuberculosis. This opinion is, I believe, confirmed by the experience of all men who are engaged in sanatorium work or in practice in resorts for tuberculosis. I may say that I rarely have a truly

incipient case referred to me, and that seldom do I fail to find evidence of tuberculosis in other areas than that designated as the site of trouble, and that I rarely have a strictly unilateral case under observation. There may be reasons for this in the nature of cases referred to me, but my more recent experience with a clientèle drawn from the reasonably well-to-do is approximately the same as my earlier experience with patients drawn mainly from a labouring and artisan class. It happens, however, that one man will send a series of relatively early cases, whereas another will send only advanced ones, both, possibly, equally promptly after recognition, so that it is fair to think that cases come to both that are recognizable at an early stage and that difference in method or point of view is responsible for the different stages when the diagnosis is made.

My own experience caused me much chagrin, though it was salutary. After my year's service at the Toronto General Hospital in '95, I went to London. I carried with me that excellent opinion of myself and of my training that ex-house surgeons of that hospital were wont to have, but I soon found that with the stethoscope as well as in other matters of medical education and training, I had much to learn, and a good deal to unlearn. As a matter of fact, I was hopelessly at sea on the chest, both in accuracy of observation and in interpretation, and since then I have been forced to realize that it is only consistent watchfulness that can prevent error or oversight in chest work. While the opportunities for clinical training in general are to-day much better than in the early '90's, it is probable that many young physicians since then have begun practice without more accurate ideas of chest work than I had at the end of the house surgeon's year, and that they have not had the same opportunity to have their errors corrected. It is not then surprising that many cases possible of recognition go undiagnosed until a relatively advanced stage is reached. In the early '90's we saw none but far advanced cases in the wards, and, since these were greatly used for clinical instruction, it was usual for the dramatic changes to be emphasized, and the recognition of cavity became the acme of diagnosis for students. I recollect one or two cases only in the out-patient's department in which early adventitious sounds were demonstrated.

I am told that the opportunity for teaching students tuberculosis in the wards in Toronto is now even less than it was fifteen years ago. With my present conception of the diagnosis of early tuberculosis, I am impressed with the utter impossibility, under the facilities that obtain, of teaching this subject in either wards or

outdoor departments, even though the latter clinic is a specialized one. Both leisure and quiet are absolutely necessary, a grouping of cases to emphasize various small points is highly desirable to teach prognosis as well as diagnosis, and the dignity of a special clinic with all proper facilities is needed, both from the point of view of teaching and in order to impress the student with the need of realizing this important subject. With the many dramatic subjects that claim his attention, that student is an exception who will see for himself the necessity of time spent upon this highly important, but undramatic detail. It is inevitable that every teacher will give the importance of the subject in which he is interested, and time does not give opportunity for great attention to all. If greater importance, however, were attached to the teaching of this highly important but modest subject, internal medicine in general would greatly benefit through the greater refinement in method that the student would have to learn. The recognition and realization of the importance of trifling changes in percussion note or breath sounds are of infinitely more importance for the student's future clientèle than his ability to diagnose a heaving thoracic aneurism or a palpable pyloric cancer.

It is a matter of profound regret to one interested in this subject that the splendid new hospital about to replace the old General makes no provision for two observation wards where suspected cases of tuberculosis might be sent in for diagnosis, and where other cases might be grouped to illustrate various phases of the disease. The recently issued annual report of this hospital shows that there were seventy-six cases of medical tuberculosis under treatment during the year. If these cases were grouped they would be much more available for broad clinical instruction. In a ward especially designed for their accommodation they would serve admirably to illustrate the present hygienic methods of prevention of infection and treatment, and their presence would be invaluable as an object lesson with the view of lessening the phthisiophobia so common in physicians and nurses as well as in the laity. A special dispensary clinic is even more essential. It should be, for hygienic reasons, in a building of its own, complete in all details, in order to facilitate diagnosis, treatment, and teaching. At the same time, it should be a great factor in the broad sociological movement already inaugurated. Such a clinic, for public service as well as for teaching, should ideally be part of the hospital, but for practical reasons it would naturally have to be intimately identified with the municipal health department. This clinical building would emphasize the

importance of the subject to the layman and physician alike, and would become, most probably, the centre around which all work, both medical and social, would develop. Containing efficient x-ray and laryngological rooms, and also a well-equipped laboratory, which would offer facilities for the use of Caulfeild's interesting serological methods for prognosis and diagnosis, and also for the easy use of tuberculin in diagnosis, it would soon come to be used by the practitioners of the city as an important arm in diagnosis. In a word, it would become an inspiration to more thorough work in general. Such dispensaries should be developed in all centres of considerable size.

With the development of social work and the familiarizing of the public with the presence of tuberculosis amongst them, emphasized by a dignified dispensary, a more common-sense view about tuberculosis than exists at present will develop in most municipalities. There will come to be a rational fear of evil resulting from carelessness and a reassurance when it is recognized that care is taken. It is much to be desired that such a rational idea should speedily be developed by both employer and employee in the interest of the wage-earner to replace the present insane fear. No factor need be greater in the development of this sane point of view on the part of the public than the family physician. Every family he has to deal with should gradually be educated to a realization of the ubiquity and insidiousness of tuberculosis, the methods of prevention, the premonitory symptoms, and the necessity of early medical advice if such suggestive symptoms should arise. The physician should be invariably, as indeed he often is, a family supervisor for prevention as well as treatment of illness. Some increased remuneration will no doubt ensue, though, as a lantern bearer, the knowledge of the brightened glow of his lantern will for a time be his main compensation.

The development of sanatoria in easily accessible, instead of relatively inaccessible places, and the excellent results obtained in them by consistent supervision, has done much to take attention from the real value of climatic change and to develop still further the idea of home treatment in both physician and patient. If the attending physician would thoroughly familiarize himself with the details of supervision, and enforce them, little could be said against home treatment, as it is very often successfully carried out. But the fact that symptoms seem, in early stages, so often relatively unimportant as compared with the familiar acute types of disease, detracts from their real importance in the minds of both physician

and patient, and the former is disinclined to emphasize restriction when he should, and the latter to make concession. At home the patient is also deprived of the education and support that he gains in a sanatorium from the experience of others, and these are of material help to him in addition to the training of sanatorium régime.

What is known as "the class system" of treatment with patients living at home gives most excellent results, but this is the consequence of specialized supervision. Recoverable cases have a much better chance, as a rule, in sanatoria. Much to be deprecated, however, is the sending away of patients for change of climate and surroundings where there will be no adequate medical supervision, unless they have already had at least a short period of sanatorium training. Many a bad result drifts to the sanatorium from such an experience, but too late. Physicians are often inclined to be critical of sanatorium results because they do not fully realize the limitation of the terms used for the purpose of record when a patient is discharged, and the results possibly do not come within their conception of the terms. Too much is also often expected when neither the anatomical nor physiological condition present warrants the desired result. A prolonged sanatorium treatment is by no means necessary in all types of cases. A tuberculosis is sometimes of subsidiary importance in those cases in which it is engrafted upon other organic or functional diseases of long standing which are of more importance in treatment. Quite inactive or arrested cases are also sometimes sent to sanatoria, which can safely be returned home after a short period of observation.

The error of gravest importance and one most frequently made in the handling of pulmonary tuberculosis by the relatively inexperienced is the failure to appreciate the full value of rest and to maintain it until even slight activity has quite subsided and the resistance has been considerably increased. Valuable as exercise is after this point has been reached, the too early adoption of it is a distinct loss rather than a gain. The exploitation of exercise as a form of treatment by those scientifically familiar with its effects, in whose hands it may be perfectly safe, is likely to encourage the inexperienced to use it unwisely, and most practitioners, in this country at least, have not yet learned to emphasize rest.

I have been told, when discussing with my friends some of the points referred to here, that I know very little about the difficulties that beset the practitioner in reaching a diagnosis, that cases that are referred to me are already labelled (unfortunately too

well in many instances) and that no onus of responsibility rests with me in making the selection, that consequently my views on this matter are one-sided, that I am in the position of the pathologist, so to speak, who has the last laugh at the clinician. I am very willing to admit the practitioner's great difficulty, the many calls upon his time, the services often so poorly remunerated, the many differential points he must consider in the variety of diseases he is compelled to deal with, how often he is right rather than wrong, at any rate in the more acute type of illnesses, and that his familiarity with prevalent types of infection may help him to exclude possibilities which the consultant does not always have in mind. Also that the patient himself is very often to blame, either because of the tardiness of his awakening through the insidious nature of this disease, with which he can long continue to work, or because he may have refused to heed the warnings which his physician has given. I am also quite willing to acknowledge that it is inevitable that any specialism must mean some, even considerable, limitation of one's horizon, both practically and theoretically. Detached as one becomes from the educational opportunities of general medicine, in this special field it is, almost more than in any other, highly desirable that there should previously have been a sound education in internal medicine. We cannot gain detail without some compensating sacrifice, but even so, it is, I think, still possible to keep an open mind, and in doubtful cases be able without prejudice to give a fair opinion.

But, after all, such contentions merely beg the question. The disease is there, and if sought, can be found much earlier than is the rule at present. The experience of the Berlin dispensaries illustrates this, as in one year for every case voluntarily coming to the dispensaries another was found, when looked for, in the household from which that patient came. Bulstrode, in his report to the Local Government Board, quotes Latham as expressing current medical opinion when he says that "the early diagnosis of pulmonary consumption is a question of supreme importance, perhaps the most important which the physician has to face."

The point of view is, in my opinion, the most important thing in helping us as physicians to meet this problem more efficiently. Our efficiency and value depend upon standards derived from our ideals. The point of view, a stethoscope of really good make, and that admirable silent critic of our work, a blue skin pencil, so little used, will make for efficiency and interest where now there may be a lack of both. No Heaven-sent sign will come to help us to diagnose tuberculosis that will be independent of sound clinical investigation.

If we are to do our duty, we must not supinely wait until the diagnosis declares itself. There is little dramatic about tuberculosis except the awakening, after which all is tragic, not necessarily in suffering as much as in the realization of lost opportunity and possibility.

It has not been my wish or intention to make out a case for the consultant or specialist, committed within the broad field of internal medicine to the care of a tuberculous clientèle, but rather to emphasize the view that the family practitioners form the bulwark of protection for the individuals of the community against the inroads of this disease, which is probably implanted in a majority at an early period of life. With this end in view, I have attempted to examine fairly the methods we bring to our daily work, and if they are found wanting, which is a matter for individual personal decision, they should be improved within ourselves, or, if this is not found practicable, help from without must be obtained, if our duty is to be done to those who trust us.

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